AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-19. (cancelled)

20. (currently amended) A method for preparing an immunoreagent which goes into making up a calibration system applied to the assaying of multiple analytes in the same biological sample, said method using various categories of particles, each category of particles being sensitized by association with a ligand specific for one of the analytes to be assayed, said method ~~characterized in that it comprises the steps which consist in~~ comprising the steps of:

a) determining, for each category of sensitized particles and for each of n given amounts of ligand associated with said particles, [[the]] a curve of response signals as a function of [[the]] concentration of homologous compound capable of binding with said ligand, over a range of concentrations corresponding to ~~the known~~ a range of concentrations for which measurement ~~range of the~~ of the response signal is known for an analyte to be assayed;

b) selecting, for each category of sensitized

particles, [[the]] a curve corresponding to the smallest amount of ligand which gives a significant response signal that ensures reading precision over the range of concentrations and which is compatible with the use of a sample dilution and of a labeling reagent, which are common to all the analytes simultaneously assayed;

c) evaluating, for each category of particles sensitized, according to the curve selected in step b), the mean signal corresponding to the signal associated with a point characteristic of each of said curves, thus obtaining as many mean signals as there are categories of particles;

d) adjusting, where appropriate, the amounts of ligand associated with each category of particles such that all the mean signals evaluated in step c) are within a ratio of 1 to 5 [[,]]; and

e) mixing, in an appropriate solvent, the various categories of sensitized particles which correspond to the criterion of step d).

21. (previously presented) The method as claimed in claim 20, wherein, in step a), the amounts of ligand used vary by steps of 2 to 4.

22. (previously presented) The method as claimed in claim 20, wherein the sensitization of said particles with said

ligands is carried out by covalence, by means of a biologically and/or chemically reactive intermediate molecular layer, or by using an affinity-based interaction system.

23. (previously presented) The method as claimed in claim 20, wherein the concentration of homologous compound is expressed in biological units over a range which is identical for all the analytes.

24. (previously presented) The method as claimed in claim 1, wherein the solvent used in step e) is suitable for and common to all the ligands.

25. (previously presented) The method as claimed in claim 20, wherein said ligands consist of antigens and/or of antibodies.

26. (withdrawn) An immunoreagent intended for the assaying of multiple analytes in biological samples, said reagent comprising a solvent and, mixed in with said solvent, various categories of particles, each of which is sensitized by association with a given amount of a ligand specific for one of the analytes to be assayed, wherein, for each of the categories of particles, and for a given concentration of compound homologous to the ligand, as expressed in biological units, said

given amount of ligand results in a signal referred to as "mean signal", which is within a ratio of 1 to 5 with the mean signals obtained for the other categories of particles.

27. (withdrawn) A kit for assaying multiple analytes in biological samples using various categories of particles, each category of particles being sensitized with a ligand specific for one of the analytes to be assayed, characterized in that it comprises:

i) an immunoreagent derived from the method as claimed in claim 20,

ii) at least one calibration standard consisting of a single homologous compound which reacts with one of the categories of particles which goes into making up the immunoreagent,

iii) a table of correspondence between the concentration, expressed in biological units, of the homologous compound constituting the calibration standard and that of each of the compounds homologous to the other ligands attached to the other categories of particles which go into making up the immunoreagent, and

iv) a labeling reagent.\

28. (withdrawn) The kit as claimed in claim 27, wherein said calibration standard comprises a homologous compound

which reacts directly or indirectly with the ligand attached to the sensitized particle.

29. (withdrawn) The kit as claimed in claim 27, wherein said homologous compound is of the same origin as the analyte to be assayed.

30. (withdrawn) The kit as claimed in claim 27, wherein said homologous compound and the analyte to be assayed are of different origins.

31. (withdrawn) The kit as claimed in claim 27, wherein said labeling reagent consists of an immunocompound capable of quantifying the reaction between the analytes and the immunoreagent, said immunocompound being coupled to a label which is preferably a fluorochrome.

32. (withdrawn) The kit as claimed in claim 27, wherein said labeling reagent consists of an immunocompound capable of quantifying the reaction between the analytes and the immunoreagent, said immunocompound being coupled to a label which is preferably a fluorochrome, and said labeling reagent reacting with the homologous compound or analyte to be assayed/ligand complex, in which case the assaying is direct, or with the uncomplexed ligand, in which case the assaying is indirect.

33. (withdrawn) A method for using the kit as claimed in claim 27, characterized in that it consists in measuring the signals resulting from the interaction between the immunoreagent and, firstly, the biological sample, and secondly, the calibration standard, and in determining and applying, to the various resulting signals, a correction factor so as to obtain the titration, expressed in biological units, of each analyte of the sample, said correction factor being the ratio between the signal obtained for the calibration standard and the concentrations derived from the correspondence table.

34. (withdrawn) The method for using the kit as claimed in claim 27, characterized in that it comprises the steps which consist in:

a) incubating, firstly, the biological sample and, secondly, the calibration standard with a predetermined amount of immunoreagent;

b) adding the labeling reagent;

c) measuring, by flow cytometry, the signals emitted, firstly, by the calibration standard and secondly, by the sample;

d) determining, for each category of particles sensitized, a correction factor which corresponds to the ratio between the concentration in biological units of each analyte to

be assayed as given by the correspondence table and the signal measured in step c) for the calibration standard;

e) multiplying the signal emitted by each category of particles and measured in step c) by said correction factor, calculated for each analyte, so as to deduce therefrom the concentration in biological units of each analyte in the sample tested.

35. (withdrawn) The method for using the kit as claimed in claim 27 in the simultaneous and direct quantification of antibodies having different antigenic specificities, characterized in that it comprises the steps of:

a) providing a biological sample in which said analytes to be assayed consist of antibodies;

b) providing the said immunoreagent in which the said ligands consist of antigens ;

c) providing the said labeling agent which consists of one or more second antibodies labeled with a fluorochrome which react specifically with the antibodies intended to be assayed;

d) incubating, firstly, the said biological sample and, secondly, the said calibration standard with a predetermined amount of the said immunoreagent ;

e) adding the said labeling reagent;

f) measuring, by flow cytometry, the signals emitted, firstly, by the said calibration standard and secondly, by the said sample;

g) determining, for each category of particles sensitized, a correction factor which corresponds to the ratio between the concentration in biological units of each analyte to be assayed as given by the correspondence table and the signal measured in step f) for the calibration standard;

e) multiplying the signal emitted by each category of particles and measured in step f) by said correction factor, calculated for each analyte, so as to deduce therefrom the concentration in biological units of each analyte in the sample tested.

36. (withdrawn) The method for using the kit as claimed in claim 27 in the simultaneous and direct quantification of various antigens, characterized in that it comprises the steps of:

a) providing a biological sample in which said analytes to be assayed consist of antigens;

b) providing the said immunoreagent in which the said ligands consist of antibodies;

c) providing the said labeling agent which consists of a mixture of second antibodies labeled with a fluorochrome which

react specifically with the antigens which are intended to be assayed;

d) incubating, firstly, the said biological sample and, secondly, the said calibration standard with a predetermined amount of the said immunoreagent ;

e) adding the said labeling reagent;

f) measuring, by flow cytometry, the signals emitted, firstly, by the said calibration standard and secondly, by the said sample;

g) determining, for each category of particles sensitized, a correction factor which corresponds to the ratio between the concentration in biological units of each analyte to be assayed as given by the correspondence table and the signal measured in step f) for the calibration standard;

e) multiplying the signal emitted by each category of particles and measured in step f) by said correction factor, calculated for each analyte, so as to deduce therefrom the concentration in biological units of each analyte in the sample tested.

37. (withdrawn) The method for using the kit as claimed in claim 27 in the simultaneous and indirect quantification of various antigens, characterized in that it comprises the steps of:

a) providing a biological sample in which said analytes to be assayed consist of antigens;

b) providing the said immunoreagent in which the said ligands consist of antibodies;

c) providing the said labeling agent which consists of a mixture of antigens labeled with a fluorochrome which compete with the analytes to be assayed for forming complexes with the ligands;

d) incubating, firstly, the said biological sample and, secondly, the said calibration standard with a predetermined amount of the said immunoreagent ;

e) adding the said labeling reagent;

f) measuring, by flow cytometry, the signals emitted, firstly, by the said calibration standard and secondly, by the said sample;

g) determining, for each category of particles sensitized, a correction factor which corresponds to the ratio between the concentration in biological units of each analyte to be assayed as given by the correspondence table and the signal measured in step f) for the calibration standard;

e) multiplying the signal emitted by each category of particles and measured in step f) by said correction factor, calculated for each analyte, so as to deduce therefrom the concentration in biological units of each analyte in the sample tested.

38. (withdrawn) The method for using the kit as claimed in claim 27 in the simultaneous and indirect quantification of various antibodies, characterized in that it comprises the steps of:

a) providing a biological sample in which said analytes to be assayed consist of antibodies;

b) providing the said immunoreagent in which the said ligands consist of antigens;

c) providing the said labeling agent which consists of a mixture of antibodies labeled with a fluorochrome which compete with the analytes to be assayed for forming complexes with the ligands;

d) incubating, firstly, the said biological sample and, secondly, the said calibration standard with a predetermined amount of the said immunoreagent ;

e) adding the said labeling reagent;

f) measuring, by flow cytometry, the signals emitted, firstly, by the said calibration standard and secondly, by the said sample;

g) determining, for each category of particles sensitized, a correction factor which corresponds to the ratio between the concentration in biological units of each analyte to be assayed as given by the correspondence table and the signal measured in step f) for the calibration standard;

e) multiplying the signal emitted by each category of particles and measured in step f) by said correction factor, calculated for each analyte, so as to deduce therefrom the concentration in biological units of each analyte in the sample tested.